ENERGY TIDBITS – July 2008

Governor Granholm spoke at the Michigan Energy Fair on June 27. The Governor announced that Mascoma Corp. has decided to build its first commercial-scale cellulosic ethanol plant in Chippewa County, south of Sault Ste. Marie. Mascoma's single-step cellulose-to-ethanol method, called consolidated bioprocessing, uses advanced technologies to make ethanol from non-food based renewable sources such as wood chips and other biomass. Mascoma chose Michigan based on the vast sustainable forests and agricultural materials available and the expertise provided by JM Longyear. In addition, Mascoma will collaborate with MSU and MTU to develop and hone scientific processes. The Center of Energy Excellence (COEE) legislation has passed through the Michigan Legislature and with the governor's signature, Mascoma will be eligible for a $15 million grant to become Michigan's first Center of Energy Excellence.

Michigan Senate passed SB 213 which establishes a portfolio standard that includes renewable energy, cleaner energy (including integrated gasification combined cycle, IGCC), and energy optimization (energy efficiency, load management, and conservation). Previously, the Michigan House had passed HB 5548 and 5549 related to a renewable portfolio standard and HB 5525 related to energy efficiency. A conference committee will try to reconcile the many differences between the bills. You can search for these bills by bill number at www.legislature.mi.gov

Khardomah Lodge, located in Grand Haven, has earned Green Lodging Michigan Steward certification. Khardomah Lodge has implemented a linen and towel reuse program, a comprehensive waste management program where they avoid single serve and single use items, purchasing post-consumer recycled products, and recycling most of their own waste materials. Khardomah Lodge has also recently had an energy audit done on the property to help discover ways to improve energy efficiency and cut utility costs. “Attaining Michigan Green Lodging certification is a great source of pride for Khardomah’s owners, management, staff, and guests, said Gayle Gerig, general manager. “I encourage other establishments to investigate how close they may already be to attaining certification, and go for the green!” http://www.khardomahlodge.com/

City of Flint and Swedish Biogas International will produce biogas from waste removed from the city’s wastewater treatment plant to fuel vehicles and generate heat and electricity. The Flint Journal reported it would cost up to $10 million initially and state and federal grants could help support it as a pilot project. The project is a result of Governor Granholm’s investment mission to Sweden in August 2007 and has the active support of U.S. Ambassador to Sweden Michael Wood, a Flint native. Sweden is a recognized global leader in renewable fuels with more than 65% of building heating coming from biomass waste. The Flint-Sweden demonstration project lays the groundwork for eventual creation of a Michigan Center of Energy Excellence, an initiative outlined in the governor’s

State of the State address earlier this year. A Center of Excellence will link an alternative energy company with a university where they will co-locate to conduct research and create new jobs. Center partners may include Kettering University, Swedish Biogas, and the Michigan Economic Development Corp.

Beer will power cars for the Democratic National Convention in Denver in August. The Molson Coors Brewing Co. uses beer lost during packaging or below quality standards and converts this waste to about three million gallons of ethanol a year. Coors has been named the convention's Official E85 Ethanol Producer. The 400 "beer" ethanol cars will be provided by GM.

Ann Arbor has a new light pole at Buhr Park that has a 400 watt wind generator at the top and two 50 watt solar electric panels on the sides. This hybrid wind-solar light represents a partnership between the City of Ann Arbor and the University of Michigan's Sustainable Design Research Laboratory. The light was donated by Everlast Induction Lighting of Jackson. Besides being powered by solar and wind energy, the light itself is unique. It is an "induction" light that has no electrodes or electrical connections to the lamp. The power needed to generate light is transferred from the outside of the lamp envelope by means of electromagnetic fields. Therefore, the light has a very long lifetime, and is expected to last over 22 years. The induction light uses 70 watts of electricity at 24 volts.

Low-Power microchip developed at the University of Michigan uses 30,000 times less power in sleep mode and 10 times less in active mode than comparable chips now on the market. The Phoenix Processor, which sets a low-power record, is intended for use in cutting-edge sensor-based devices such as medical implants, environment monitors or surveillance equipment. The chip consumes just 30 picowatts during sleep mode. A picowatt is one-trillionth of a watt.

ASHRAE Advanced Energy Design Guides provide recommendations for achieving 30% energy savings over the minimum code requirements of ASHRAE Standard 90.1-1999. The guides cover small retail, small office buildings, and schools. www.ashrae.org/technology/page/938

Rock Port, MO, (pop. 1316) became America's first community to be completely powered by wind in April 2008. Four Suzlon 1.25-MW turbines deliver 5 MW of electricity into the grid that serves the community. Hull, Mass., is aiming to build what would be the first offshore wind farm in the US about a mile and a half off their coast. The town's 11,000 citizens have already erected two on-shore turbines that provide some 13% of their electricity. The proposed offshore four-turbine farm could potentially meet 100% of the town's energy needs. The project could cost some $40 million.

Grand Rapids Art Museum has received a gold certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design program --

the first and only newly built art museum in the world to receive LEED certification.

Country Inn & Suites, Lansing, has earned Green Lodging Michigan Steward certification. Country Inn & Suites has installed Energy Star lighting and equipment, low flow water fixtures, and water-efficient clothes washers. Country Inn & Suites also reduces waste by avoiding single-serve packaging and single use items, and improves overall building quality by using low VOC paints, carpets, adhesives, and safe cleaning products. http://www.countryinns.com/hotels/milansin

Michigan Interfaith Power & Light has introduced Self Assessment tools with the help of Energy Star and the Small Business Association of Michigan. The "Putting Energy Into Stewardship, Energy Star Guide for Congregations" is a compilation of informational manuals, videos and calculation tools that you can download from www.miipl.org/assessment.html.

Merle Kindred who helped promote Energy Star homes in the UP has been promoting efficiency in Kerala, India. http://www.ecospace.cc/design/energy-efficient-house-1207.htm#

Michigan State University has purchased carbon credits from the University of Iowa to meet its obligation to the Chicago Climate Exchange (CCX). MSU will buy 5,000 tons of carbon dioxide credits from Iowa for $4.25 per ton, or $21,250. MSU joined the CCX in 2006, agreeing to reduce its greenhouse gas and carbon dioxide emissions by 6% by 2010. The first compliance year for MSU was 2007 and the commitment was 25,000 tons. “Since MSU is in the initial stages of the CCX program, we need to purchase additional credits until we can ramp up to reduce energy consumption and use alternative fuels at the power plant,” said Lynda Boomer, energy and environmental engineer at MSU. Boomer said MSU is burning a small amount of biomass consisting of material from corn starch and is looking at ways to increase the use of biomaterial.

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